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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,838	03/12/2001	Yoshinari Shirata	450100-03062	1295

20999 7590 01/25/2005

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2614	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,838	SHIRATA ET AL.	
	Examiner	Art Unit	
	Paulos M. Natnael	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4-6,8,11,13,15,19,21,24 and 26* is/are allowed.

6)☒ Claim(s) *1-3,7,9,10,12,14,16-18,20,22,23,25,27-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The present Office Action corrects some minor errors in claims 1-6,9,10,12,20, and 21. In particular, on Claim 12, i.e., the limitation "d) wherein said plurality of output data correction characteristics are based on characteristics of a video source, characteristics of an image display device and visual characteristics" was inadvertently left un-addressed although the same limitation in other similar claims was repeatedly referenced to or dealt with as necessary. At least for that reason, for the changes reflected in the rejections, this Office Action has been made non-final in order to give the Applicant a chance to review and respond to the rejections therein.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims **1-3, 7,9, 10,12,14, 16-18,20, 27-50** are again rejected under 35 U.S.C. 103(a) as being unpatentable over Wagensonner et al. U.S. Pat. No. 4,812,903.

Considering claim **1 (as amended)**, Wagensonner discloses the following claimed subject matter, note;

a) the claimed dividing an input data region representative of a range of digital luminance data into a plurality of regions comprising substantially all of said input data region, is met by regions 31, 32 and 33, Fig. 7; (see also col. 2, lines 32-35)

b) selecting one of a plurality of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions, is met by the regions 31,32, and 33 which are non-linear taken as a whole, but have a linear portion each having different slope as shown in Fig.7 which forms the trapezoidal correction characteristics. (see also In fig. 8, which illustrates an S-shaped correction characteristic).

c) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, is met by the trapezoidal characteristic formed by the regions or areas 31,32,and 33, FIG.7; (see also fig. 8)

Except for;

d) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding d), Wagensonner discloses a method of electronically improving the sharpness and contrast of a color image. Wagensonner teaches color saturation correction, contrast evaluation and adjustment, etc., using the circuit in Fig.5.

Wagensonner teaches that color saturation correction for relatively dark areas of the original would appear to be excessively saturated and the relatively light areas of the image would appear to be desaturated, if color saturation correction is not performed accurately. However, the examiner takes official notice in that inserting or adding identification information in the video signals is notoriously well known in the art and, therefore, it would have been obvious to the skilled in the art at the time the invention was made to modify the reference of Wagensonner by providing identification information, in order for system to recognize the video signal more easily and process the desired information faster and efficiently.

Considering claim **2(as amended)**, a video processing method comprising the steps of:
a) dividing an input data region representative of a range of digital color difference data into plurality of regions comprising substantially all of said input data region, is met by regions 31-33, fig.7;
b) selecting one of a plurality of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions;

see rejection of claim 1(b)

c) executing gain control or hue control with regard to digital color difference data or other digital color data, is met by FIG. 9 which shows characteristic functions for color difference signals U and V.

e) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic;

see rejection of claim 1(c).

Except for;

d) wherein said plurality of output data correction characteristics are based on characteristics of a video source, characteristics of an image display device and visual characteristics;

Regarding d), see rejection of claim 1(d).

Considering claim **3**, a video processing method comprising the steps of

a) dividing an input data region representative of a range of digital color difference data into plurality of regions comprising substantially all of said input data region, is met by regions 31-33, fig.7;

b) selecting one of a plurality of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions;

Regarding b) see rejection of claim 1(b).

c) separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data combined to be multiplex, is met by the luminance and chrominance generating unit 13;

d) executing gain control or hue control with regard to digital color difference data or other digital color data, is met by FIG. 9 which shows characteristic functions for color difference signals U and V.

f) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic;

Regarding f) see rejection of claim 1(c).

Except for;

e) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding e), see rejection of claim 1(d).

Considering claim **7**, the video processing method according to claim 1, wherein said selected output data correction characteristic equalizes the width of the first region and that of the third region to each other, is met by the first and third regions (figs. 7 and 8)

Considering claim **9**, Wagensonner discloses all claimed subject matter, note;

a) a component generator for generating components including post-correction output luminance data in first, second and third regions from pre-correction input luminance data and data which determine the boundary value between the first and second regions and the boundary value between the second and third regions, is met by luminance and chrominance generating unit 13, fig.5.

b) a selective compositor for selecting the components generated by said component generator in response to signals for identifying the first, second and third regions, and producing post-correction output luminance data over the entire regions of the input luminance data, is met by luminance and chrominance converting unit 16, fig.5;

c) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, is met by the trapezoidal characteristic formed by the regions or areas 31,32,and 33, FIG.7; (see also fig. 8)

except for;

d) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding d), see rejection of claim 1 (d) above.

Considering claim **10**, a video processing device comprising:

a) a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data to be multiplexed, is met by luminance and chrominance generating unit 13, fig.5.

b) a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, is met by luminance and chrominance converting unit 16, fig.5;

c) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, is met by the trapezoidal characteristic formed by the regions or areas 31,32,and 33, FIG.7; (see also fig. 8)

Except for;

d) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding d), see also rejection of claim 1(d).

Considering claim **12**, a video processing device comprising:

a) a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data to be multiplexed, is met by luminance and chrominance generating unit 13, fig.5.

b) a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, ... is met by luminance and chrominance converting unit 16, fig.5;

c) a control processing circuit for executing gain control or hue control with regard to the color difference data separated by said data separator circuit, is implied in the video processing system of Wagensonner et al as is well known in the art TV receivers.

Except for;

d) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding (d), see rejection of claim 1(d).

Considering claim **14**, the video processing device according to claim 10, further comprising a data compositor circuit for compositing the output luminance data of said luminance corrector circuit and the output color difference data of said data separator circuit or said control processing circuit, is met by luminance and chrominance converting unit 16, fig.5;

Considering claim **16**, a data compositor circuit for compositing the output luminance data of said luminance corrector circuit and the output color difference data of said data separator circuit or said control processing circuit, is met by unit 16, fig.5;

Considering claim **17**, Wagensonner discloses all claimed subject matter, note;

a) a component generator for generating components including post-correction output luminance data in first, second and third regions from pre-correction input luminance

data and data which determine the boundary value between the first and second regions and the boundary value between the second and third regions; and,

b) a selective compositor for selecting the components generated by said component generator in response to signals for identifying the first, second and third regions, and producing post-correction output luminance data over the input data region of the input luminance data;

c) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

Regarding claim 17, see rejection of claims 1 (d) and 9.

Considering claim **18**,

a) a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data combined 'to be multiplex; and

b) a luminance corrector circuit for correcting the luminance data separated by said data separator circuit;

c) correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, is met by the trapezoidal characteristic formed by the regions or areas 31,32,and 33, FIG.7; (see also fig. 8)

Regarding claim 18, see rejection of claim 12;

Considering claim **20,**

a) a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data combined to be multiplex, is met by item 13, fig.5;

b)a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, is met by item 15, fig.5;

c) and a control processing circuit for executing gain control or hue control with regard to the color difference data separated by said data separator circuit, is implied in system such as Wagensonner's.

except for;

d) wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image;

As for (d), see rejection of 1(d).

Considering claim **27**, the video processing method according to claim 1, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, is met Fig.7 which shows trapezoidal characteristics. (see. also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **28,** the video processing method according to claim 1, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, is met by the S-shaped characteristic in Fig. 8. (see also col. 12, lines 30-43)

Considering claim **29,** The video processing method according to claim 2, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **30,** The video processing method according to claim 2, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one.

Regarding claim 30, see rejection of claim 28.

Considering claim **31**, The video processing method according to claim 3, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one. is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **32**, the video processing method according to claim 3, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **33**, the video processing device according to claim 9, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is

equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one.

See rejection of claim 27;

Considering claim **34**, the video processing device according to claim 9, wherein said selected output data correction characteristic is an S shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **35**, The video processing device according to claim 10, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **36**, The video processing device according to claim 10, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region

where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **37**, The video processing device according to claim 12, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **38**, The video processing device according to claim 12, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **39**, The video processing appliance according to claim 17, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region

where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **40**, The video processing appliance according to claim 17, wherein said selected output data correction characteristic is an S shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **41**, The video processing appliance according to claim 18, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met Fig.7 which shows trapezoidal characteristics. (see also col. 10, lines 16-35 and 64 through col. 11, 11)

Considering claim **42**, The video processing appliance according to claim 18, wherein said selected output data correction characteristic is an S-shaped characteristic which is

nonlinear and continuous as a whole and consists of a linear portion in a .first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.8;

Considering claim **43**, The video processing appliance according to claim 20, wherein said selected output data correction characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one, is met by Fig.7 which shows trapezoidal characteristics and three distinct regions of 31,32 and 33. (see also col. 10, lines 16-35 and 64 through col. 11, line 11)

Considering claim **44**, the video processing appliance according to claim 20, wherein said selected output data correction characteristic is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of a linear portion in a first region where the gain is greater than one, a linear portion in a second region where the gain is equal to one exactly or approximately, and a linear portion in a third region where the gain is smaller than one.

Regarding claim 44, see rejection of claim 28;

As to claim **45**, see claim 1(d);

As to claim **46**, see claim 1(d);

As to claim **47**, see claim 9(d);

As to claim **48**, see claim 9(d);

As to claim **49**, see claim 17(d);

As to claim **50**, see claim 17(d);

Response to Arguments

Applicant's Arguments

For example, claim 1, as amended herein, recites in part, "A video processing method for displaying an image input as a video signal, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image." (Underlining and Bold added for emphasis.) It is respectfully submitted that the portions of Wagensonner relied upon by the Examiner do not teach, suggest or motivate a skilled artisan to practice at least the above-recited feature of claim 1.

Wagensonner suggests characteristic functions that may curve continuously or that may be composed of a plurality of straight-line segments (column 14, lines 5-9) and Look-up-Tables containing several of these characteristic functions, which are associated with respective brightness levels (column 15, lines 32-37). However, Wagensonner does not suggest or teach a plurality of output data correction

characteristics that are selected based on an denticulation information inserted in said video signal to identify said image.

Examiner's Response

Adding identification information in the video signals is notoriously well known in the art and, therefore, it would have been obvious to the skilled in the art to modify the reference of Wagensonner by providing such identification information in the video signal, in order for system to recognize the video signal or parts thereof more easily and process the desired information faster and more efficiently. (see rejection of amended claims above).

Allowable Subject Matter

4. Claims **4-6,8,11,13,15,19,21,24,** and **26** are allowable over the prior art.

5. Claims **22,23**, and **25** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose, a video processing method comprising: dividing an input data region representative of a range of digital luminance data into a plurality of regions comprising substantially all of said input data region, selecting one of a plurality

of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions, wherein one of said output data characteristic is an S-shaped characteristic 'which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a linear portion in said second region where the gain is greater than one; wherein at least one of said output data characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, correcting digital luminance data in accordance with the selected characteristic, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim 4; a video processing method comprising the steps of dividing an input data region representative of a range of digital color difference data into plurality of regions comprising substantially all of said input data region, selecting one of a plurality of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions; wherein at least one of said output data characteristic is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear

portion in first region where the gain is greater than one, a linear portion in second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, and one of said plurality of output data correction characteristics is an S-shaped characteristic which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a linear portion in said second region where the gain is greater than one; correcting the digital luminance data in accordance with the selected characteristic; executing gain control or hue control with regard to digital color difference data or other digital color data, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim 5; a video processing method comprising the steps of: dividing an input data region representative of a range of digital color difference data into plurality of regions comprising substantially all of said input data region, separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data combined to be multiplexed, selecting one of a plurality of output data correction characteristics, each of said plurality of output data correction characteristics being non-linear as a whole, but comprising a linear portion coextensive with each of said plurality of regions and having different slopes in at least two of said regions, wherein at least one of said output data characteristic is trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or

approximately, and a linear portion in said third region where the gain is smaller than one , and one of said plurality of output data correction characteristics is S-shaped characteristic which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a linear portion in said second region where the gain is greater than one; correcting the separated luminance data in accordance with the selected output data correction characteristic, executing gain control or hue control with regard to the separated color difference data, is met by FIG. 9 which shows characteristic functions for color difference signals U and V, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim 6; a video processing device comprising: a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data to be multiplexed, a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, wherein one of said plurality of output data correction characteristics is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region, where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, one of said plurality of output data correction characteristics is a S-shaped characteristic which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a

linear portion in said second region where the gain is greater than one, a correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim 11; a data separator circuit for separating luminance data and color difference data from digital video data which are composed of the luminance data and the color difference data to be multiplexed; a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, wherein one of said plurality of output data correction characteristics is a trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one and one of said plurality of output data correction characteristics is a S-shaped characteristic which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a linear portion in said second region where the gain is greater than one, a correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic, wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim 19. a data separator circuit for separating luminance data and color difference data

from digital video data which are composed of the luminance data and the color difference data to be multiplexed; a luminance corrector circuit for correcting the luminance data separated by said data separator circuit, wherein one of said plurality of output data correction characteristics is a the trapezoidal characteristic which is nonlinear and continuous as a whole and consists of a linear portion in said first region where the gain is greater than one, a linear portion in said second region where the gain is equal to one exactly or approximately, and a linear portion in said third region where the gain is smaller than one, and one of said plurality of output data correction characteristics is a S-shaped. characteristic which is nonlinear and continuous as a whole and consists of linear portions in said first and third regions where the gain is smaller than one, and a linear portion in said second region where the gain is greater than one; and a control processing circuit for executing gain control or hue control with regard to the color difference data separated by said data separator circuit, a correcting digital luminance data corresponding to said video signal included in said plurality of regions in accordance with said selected output data correction characteristic wherein said plurality of output data correction characteristics are selected based on an identification information inserted in said video signal to identify said image, as in claim **21**; a controller for writing a control state relative to video data as a control parameter in said memory correspondingly to video identification information which specifies the video, or to characteristic descriptive information which describes the image characteristic, wherein, when the video data are to be outputted, said controller reads out the control parameter from said memory if the video identification information or the

characteristic descriptive information relative to the output video data is stored in said memory and also if the control parameter corresponding to such information is stored therein, and said controller sets the control state for the output video data in accordance with the control parameter thus read out, as in claim **22**.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rovira et al., U.S. Patent No. 5,239,540 discloses **adding ID information to digital audio and video signals.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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PAULOS M. NATNAEL
PATENT EXAMINER

PMN
January 12, 2005